

BO YANG

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EDUCATION

Georgia Institute of Technology

Dec 2025

- M.S. Computer Science, GPA: 3.90
- Select Coursework: System Design in Cloud Computing, Graduate Algorithms, Deep Learning, Advanced Operating Systems, Artificial Intelligence, Database System Implementation

University of Connecticut

- B.S.E. Civil Engineering

WORK HISTORY

Ingenimax

Dec 2024 – Jan 2025

Engineering Intern

- Contributed to the code base for a platform engineering AI agent that deployed Kubernetes and AWS containers based on client needs.
- Tested LLM query, chain of thought, context fetching functionalities.

South Col Engineering, P.C.

Aug 2021 – Present

Structural Engineer

- Conduct inspections of in-service bridges in New York State Region 8 for NYSDOT as subcontractor to WSP.
- Process field data and perform structural loss calculations. Maintain bridge inspection field-work software and local database. Compile inspection reports in NYSDOT's Bridge Data Information System.

PERSONAL PROJECTS

Lightweight Spark

- Built a distributed Apache Spark/MapReduce framework in Rust with in-memory file processing, deployable locally over KIND or on Azure AKS cluster. Uses etcd for leader election, gRPC/tokio for master to worker and worker to worker coordination.
- Implemented CLI client that takes care of package installation, Azure configuration setting, and uploading custom map/reduce scripts. Client also verifies all reduce outputs. The Azure deployment utilizes Blob Storage and Key Vault.

Bridge Database Management Application with AI Search

<https://bridge-app.by364.dev/>

- Built and deployed a full-stack application (that I use at work) with Flask and Fly.io. Provides both SQL querying and AI search for a bridge database.
- AI search features uses a fine-tuned T5 transformer model that's small enough (60M parameters) to run via Github LFS. The model was finetuned on a generated dataset of queries to be able to parse natural language questions regarding database data. The questions are translated to endpoints which are checked before executed as regular SQL queries.

SKILLS

- **Programming Languages:** Python, C, C++, Rust
- **Frameworks and Tools:** PyTorch, MLflow, NumPy, pandas, Libvirt, OpenMP, MPI, gRPC, Ryu, Kubernetes, etcd, Azure, Flask, SQL
- **Languages:** English (native), Mandarin Chinese (native)